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**Supplementary table 1:** The location of investigated croplands associated with the Hartbeespoort, Crocodile (West), and Marico-Bosveld (reference system) irrigation schemes. Additional information on farmland size, cultivated crops, and applied fertilisers are also provided. Adapted from Du Preez et al.<sup>1</sup>

Irrigation Scheme	Farm	Land coordinates	Farmland area (ha)	Predominant soil texture (USDA)	Crop and cultivar (First sampling interval)		Crop and cultivar (Second sampling interval)	
					Crop (cultivar)	Fertiliser application	Crop (cultivar)	Fertiliser application
Hartbeespoort	HB 1	25.672080° S, 27.802742° E	1.17	Clay	<i>Glycine max</i> L. Merrill, soybean (PHB 95Y20R)	None	<i>Zea mays</i> L., maize (DKC 78-45 BRGEN)	Nitrogen (220 kg/ha), phosphorus (30 kg/ha), potassium (40 kg/ha)
Hartbeespoort	HB 2	25.651883° S, 27.742367° E	27.27	Clay	<i>Glycine max</i> , soybean	Ammonium sulfate (32.4 kg/ha), calcium nitrate (150 kg/ha), ferrous sulfate (2.4 kg/ha), potassium humate (2.6 kg/ha), potassium sulfate (410 L/ha), urea (129.5 kg/ha), zinc sulfate (2.4 kg/ha)	<i>Daucus carota</i> L., carrot (Bangor)	Vermicast (8000 kg/ha)
Hartbeespoort	HB 3	25.567079° S, 27.647483° E	30.2	Sandy loam	<i>Glycine max</i> , soybean (Pioneer B53)	None	<i>Beta vulgaris</i> L., beetroot (Falcon) Sakata	Monoammonium phosphate (500 kg/ha), lime (500 kg/ha)
Hartbeespoort	HB 4	25.421221° S, 27.619690° E	3.32	Sandy loam	<i>Glycine max</i> , soybean	None	<i>Triticum</i> sp., wheat	Monoammonium phosphate (200 kg/ha), urea (400 kg/ha)
Crocodile (West)	CW 5	24.983933° S, 27.549934° E	13.8	Loam	<i>Glycine max</i> , soybean	None	<i>Triticum</i> sp., wheat	Nitrogen (214 kg/ha), phosphorus (50 kg/ha), potassium (73 kg/ha)
Crocodile (West)	CW 6	24.794570° S, 27.439316° E	52.7	Sandy loam / Loamy sand	<i>Glycine max</i> , soybean (PHB94Y80R)	Phosphorus (20 kg/ha), potassium (30 kg/ha)	<i>Triticum</i> sp., wheat (Duzi)	Nitrogen (182 kg/ha), phosphorus (42 kg/ha), potassium (60 kg/ha)
Marico-Bosveld	Ref 7	25.434568° S, 26.380073° E	25.7	Sandy loam	<i>Glycine max</i> , soybean (Pan 1583)	Potassium chloride (100 kg/ha)	<i>Glycine max</i> , soybean (Pan 1583 R)	Potassium chloride (100 kg/ha)
Marico-Bosveld	Ref 8	25.369658° S, 26.389365° E	23	Sandy loam	<i>Glycine max</i> , soybean	None	<i>Zea mays</i> , maize (DKC73-72) Monsanto	Cattle manure (7 ton/ha), monoammonium phosphate (200 kg/ha), urea (150 kg/ha)

**Supplementary table 2:** The pH and electrical conductivity (EC) of samples selected for investigation

Farmland	First sampling interval		Second sampling interval	
	pH	EC ( $\mu\text{S}/\text{cm}$ )	pH	EC ( $\mu\text{S}/\text{cm}$ )
HB1	8.2	760	7.75	838
HB2	8.8	991	7.98	858
HB3	9.06	1011	7.87	737
HB4	8.29	1353	7.62	4080
CW5	8.05	750	8.48	644
CW6	8.1	1028	7.56	857
Ref 7	9.14	440	8.25	774
Ref 8	8.52	1963	8.2	1066

#### Reference

1. Du Preez GC, Daneel MS, Wepener V, Fourie H. Beneficial nematodes as bioindicators of ecosystem health in irrigated soils. *Appl Soil Ecol.* 2018;132:155–168. <https://doi.org/10.1016/j.apsoil.2018.08.008>